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The Early Entry Institute, an especially individualized and supportive 8-week summer program, was established in 1966 at Northern Michigan University to raise the academic level of students who graduate in the lower third of their high school class and may be poor college risks. This study compared the persistence and academic performance of 91 students who completed the program in the summers of 1966 and 1967 with a comparable group of students entering the university in the fall of both years. The criterion of achievement was the grade point average (GPA), and persistence was measured by enrollments in semesters following summer sessions or initial semesters. Early Entry students earned higher GPAs during the summer programs than those earned by fall entrants in their first semesters (fall) but had lower GPAs for fall and spring semesters than the fall entrants. 1966 Early Entry students had more persistence when it was measured in terms of completion of 2, 3, or 4 semesters; but when persistence was measured by the number of semesters completed following initial enrollment, no significant difference was found. The high mean GPAs of Early Entry students in the summer sessions dropped in the fall and spring semesters to a level not greatly different from those of fall entrants. It was concluded that the influence of the Institute on academic performance was not greater than that of regular fall programs, but that a similar special program may be more successful if extended over a longer period of time. (WM)

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ACADEMIC PERFORMANCE AND PERSISTENCE OF EARLY ENTRY INSTITUTE STUDENTS

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by

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ACKNOWLEDGMENT

Although I accept responsibility for the content of this report, I should like to acknowledge the encouragement given by Mr. Byron Renz, Director of the Early Entry Institute, in initiating the study and persisting to its conclusion. Even though the 1966 and 1967 Institutes did not seem to have a substantial continuing impact on the academic behavior of participants, it is my conviction that we must continue to strive to develop more effective means of educating young people, including those who are poor academic risks. Mr. Renz and those who worked with him are, I think, to be commended for their efforts.

-- K. E. Stordahl

In the summer of 1966 a special eight-week summer program, hereinafter referred to as the Early Entry Institute, designed for students whose high school performance was such as to make them poor academic risks was instituted at Northern and has been continued each succeeding summer. The basic objective of this program is to enhance the probability that these students will make satisfactory academic adjustment to and progress at the University. In an effort to accomplish this objective the program provides for classes of limited enrollment (approximately 20), emphasizes individual and special group assistance with academic work, and encourages participation in group and individual counseling. Because of the relatively small number of students enrolled, the program can provide more individualized attention than is possible in the fall semester.

Students in the Early Entry Institute are expected to enroll in two courses (8 semester hours) normally taken by freshmen during their first semester. In the summer of 1966 both courses, Humanities I and Basic Mathematics (Mathematics 111), were required. In subsequent summers only Humanities I has been mandatory with a second course available as an elective.

The purpose of this study was to compare the academic performance and persistence of a sample of Early Entry Institute students with a comparable group of fall entrants. More specifically it was designed to answer the following questions:

1. Is the academic performance, as measured by course grades, of students in the Early Entry Institute superior to that of fall entrants?
2. Are students in the Early Entry Institute more persistent, as measured by subsequent enrollment, than fall entrants?

METHOD

All applicants for admission in 1966 and 1967 who completed their application prior to the summer session and had graduated in the lower third of their high school class were encouraged to enroll in the Early Entry Institute

rather than in the fall semester. Each year approximately 100 students elected to attend the Institute and were admitted to the special eight-week summer program. In 1966 they were admitted with the understanding that their academic performance would not deter them from continuing in the fall semester; but in 1967 the Early Entry students were held to the same academic standards as fall entrants.

The Early Entry Institute sample for this study consisted of 91 students who completed the Institute program during each of two summers, 1966 and 1967. The 1966 sample comprised the total number who completed the special eight-week summer institute with the exception of a few students whose high school rank placed them above the lower third of their high school class. The 1967 sample was drawn at random from among the 99 students eligible under the same criteria as the 1966 sample. A stratified random sample of 91 students was also drawn from the 1966 and 1967 fall entrants. The stratification variables were year of entrance, sex, home location (Upper Michigan, Lower Michigan, or other states), rank in high school graduating class (lower third), and score on a standardized test of verbal ability (lower quarter, second quarter or upper half on local college norms). A sample of fall entrants equal to the number of Early Entry Institute students within each subclass was randomly drawn from among all eligible candidates.

The criterion of academic performance during each period of enrollment studied was the student's grade point average. Persistence was measured by enrollment in semesters subsequent to the initial semester or summer session.

Academic performance (GPA) was analyzed by analysis of covariance using a years by method factorial design with high school rank held constant. Since the number of students enrolled in each group was not equal beyond the first enrollment, random sampling was used to obtain equal numbers for convenience in performing the covariance analyses. Persistence data were analyzed by chi square.

RESULTS

As may be seen from Table 1, there was a significant difference between the mean GPA of Early Entry Institute students and fall entrants for both their first and second enrollments. However, examination of the means in Table 2

TABLE 1.

F-ratios and Adjusted Error Mean Square Values for the Analysis of Covariance of College GPA with High School Rank Held Constant.

Source	d f	First Enrollment	Second Enrollment	First Fall Semester	First Spring Semester
Method	1	28.42*	8.45*	.00	1.00
Years	1	.55	.29	3.01	.01
Interaction	1	2.23	1.69	1.17	.87
Within MS		.735	.559	.614	.603
d f for Within		360	244	272	204

* $P < .01$

TABLE 2.

Mean Grade Point Average For Each Freshman Year Enrollment Period (N: All Subjects Enrolled)

Enrollment Period	Early Entry Institute		Fall Entrants	
	N	Mean	N	Mean
Summer	182	1.93		
Fall	148	1.43	182	1.46
Spring	107	1.67	132	1.73

TABLE 3.

Chi-square Values for Persistence as Measured by Enrollment in Semesters Subsequent to Initial Enrollment

Groups Compared	Chi Square
Criterion: 2nd Enrollment	
EE vs F '66 Entrants	9.096*
EE vs F '67 Entrants	.029
EE '66 vs SS '67 Entrants	3.615
F '66 vs F '67 Entrants	1.762
Criterion: Third Enrollment (EE vs F '66 Entrants)	9.697*
Criterion: Fourth Enrollment (EE vs F '66 Entrants)	.025
Criterion: Spring Enrollment 1st yr.	
EE vs F '66 Entrants	1.172
EE vs F '67 Entrants	8.900*
Criterion: Fall Enrollment 2nd Yr. (EE vs F '66 Entrants)	1.591
Criterion: Spring Enrollment 2nd Yr. (EE vs F '66 Entrants)	.229

d f = 1 for all comparisons

* Significant at .01 level.

TABLE 4.

Number and Percent of Sample Enrolled During Each Enrollment Period Subsequent to Initial Enrollment

Enrollment Period	Initial Enrollment							
	SS 1966		Fall 1966		SS 1967		Fall 1967	
	N	%	N	%	N	%	N	%
F 1966	79	87						
Sp 1967	55	60	62	68				
F 1967	26	29	34	37	69	76		
Sp 1968	30	33	27	30	51	56	70	79

indicates that these differences were not in the same direction for both periods. That is, Early Entry students earned a higher average GPA (1.93) during the summer (their first enrollment) than fall entrants earned in their first semester (1.46); whereas, Early Entry students had a lower average (1.43) for the fall (their second enrollment) than did fall entrants for their second enrollment (1.73). Also, as may be noted from Tables 1 and 2, there was no difference between the mean GPA of Early Entry and fall students for either the fall or spring semester of their freshman year.

When persistence was defined as completion of a second, third, or fourth enrollment period, the 1966 Early Entry students were found to be significantly more persistent than their counterparts who enrolled in the fall (Table 3). This relationship did not, however, hold for the 1967 entrants nor for the fourth enrollment period of the 1966 entrants. On the other hand, when persistence was defined as enrollment in a given semester subsequent to initial enrollment, such as the spring semester, no difference in persistence was found except for the first-year spring enrollment of 1967 entrants. As can be seen from Tables 3 and 4, a significantly larger proportion of the 1967 fall (79 percent) than Early Entry students (56 percent) was enrolled in the following spring semester.

DISCUSSION

As is apparent from the procedures previously described, the design of this study was not truly experimental, so the results must be interpreted in the light of two major limitations. First, the students who enrolled in the Early Entry Institute or in the fall were largely self-selected, that is the decision to enroll at one time or the other was made by the student, not by the institution. The second major limitation was the criterion of performance, namely, college GPA. In addition to the usual limited reliability of course grades, instructors selected for the Early Entry Institute tended to be favorably disposed towards the program and the students for whom it was designed; whereas, no control was exercised over this variable for fall entrants. The effects, if any, of these variables upon the criteria are unknown.

Perhaps the most notable finding was the relatively high mean GPA earned by Early Entry students in the Institute. This high average GPA was, how-

ever, followed by a decline in the fall to a level not significantly different from the average of fall entrants. This similarity was also evident in the spring semester. Thus, there was no evidence that the achievement of Early Entry students differed from fall entrants except during their enrollment in the Institute.

Why did the Institute students earn substantially higher grades in the summer Institute than either they or the fall entrants did in the fall? Unfortunately, the design of the study does not permit an unequivocal answer, but two explanations seem plausible. One, that the achievement of Early Entry students was in fact enhanced during the summer as a result of the more highly structured instructional program and individual attention not provided in the fall. However, if this explanation is true, it also appears that the Institute did not affect the student's ability to make satisfactory academic progress in subsequent semesters. A second plausible explanation is invalidity of the criterion; that is, the Institute students may have received a higher mean GPA during the summer not because their achievement was superior, but because the instructors tended to be sympathetic with the program and the students who participated in it and consequently gave higher grades than instructors during the regular academic year.

Although students enrolled in the 1966 Early Entry Institute appeared to be more persistent than fall entrants, this difference can probably be attributed to the differential academic proficiency criteria applied to this group. As noted earlier, the 1966 Early Entry students were assured that their continuation in the fall would not be contingent upon their performance in the Institute; whereas, the established academic proficiency requirements were applied to all other groups. Thus, as with academic performance, there seemed to be no stable difference in persistence between the Early Entry and fall students, although a substantial number of both groups had persisted in college for several semesters at the time of this study. In brief, there was no substantial evidence that the Early Entry Institute had any greater effect on the subsequent academic behavior of participants than did the regular fall program.

Although it is encouraging to note that a significant number of the poor academic risks included in this study were making satisfactory progress towards a degree, it is discouraging to find that the Early Entry Institute, which was designed to be more individualized and supportive than the regular

fall program, seemed to have no consistent differential effect upon this progress beyond the Institute itself. However, it is probably unrealistic to expect any substantial enduring change in the academic behavior of any student (whether he be a good or poor academic risk) as the result of an eight-week experience only moderately different from that provided during a regular college semester. This is probably particularly unrealistic when the supportive efforts do not persist beyond the eight-week period. Perhaps a program in which there was an attempt to adapt teaching strategies, time to learn, and counseling services to individual student needs over a longer period of time, perhaps a year or even throughout the student's college experience,would prove more viable.